

1. An ergonomic support comprising:

at least one guide rail adapted to be mounted in a seat;

10 an archable pressure surface having an upper end and a lower end, said upper end and said lower end of said archable pressure surface being movably attached to said at least one guide rail and at least one of said upper end and said lower end being disposed to slide along said at least one guide rail;

15 a traction element engaged to slide said at least one of said upper end and said lower end of said archable pressure surface along said at least one guide rail such that an arch forms in said archable pressure surface, said arch having an apex; and

20 a weight distribution surface fixed to said archable pressure surface.

25 2. The ergonomic support of Claim 1 wherein said ergonomic support is a lumbar support.

3. The ergonomic support of Claim 1 wherein said weight distribution surface is fixed to said archable pressure surface substantially at said apex.

4. The ergonomic support of Claim 1 wherein said weight distribution surface is fixed to said archable pressure surface along only one line.

5. The ergonomic support of Claim 1 wherein said weight distribution surface is fixed only along a medial line about at said apex of said archable pressure surface.

6. The ergonomic support of Claim 1 wherein said weight distribution surface is plastic.

7. The ergonomic support of Claim 1 wherein said weight distribution surface is metal

30 8. The ergonomic support of Claim 1 wherein at least one end of said weight distribution surface is free.

9. The ergonomic support of Claim 1 wherein said weight distribution surface is ribbed.

10. The ergonomic support of Claim 1 wherein said weight distribution surface has holes.

5 11. The ergonomic support of Claim 1 wherein said weight distribution surface is flexible.

12. The ergonomic support of Claim 1 wherein said weight distribution surface is curvilinear.

13. The ergonomic support of Claim 1 wherein said weight distribution surface is tapered towards an upper edge and tapered toward a lower edge of said weight distribution

10 surface.

14. A method of ergonomic weight support distribution comprising:
mounting an archable pressure surface to a guide element at an upper end and a lower end of said archable pressure surface, said guide element being adapted to be mounted in a seat;
engaging a traction element with said archable pressure surface such that at least one of said upper end and said lower end of said archable pressure surface, travels along said guide element to selectively arch said archable pressure surface;
fixing a weight distribution surface to said archable pressure surface.

20 15. The method of Claim 14 wherein said ergonomic support is a lumbar support.

16. The method of Claim 14 wherein said weight distribution surface is fixed to said archable pressure surface substantially at an apex of said arch in said archable pressure

25 surface.

17. The method of Claim 14 wherein said weight distribution surface is fixed to said archable pressure surface along only one line.

18. The method of Claim 14 wherein said weight distribution surface is fixed only along a medial line about at said apex of said archable pressure surface.

30 19. The method of Claim 14 wherein said weight distribution surface is plastic.

20. The method of Claim 14 wherein said weight distribution surface is metal.

5 21. The method of Claim 14 wherein at least one end of said weight distribution surface is
free.

22. The method of Claim 14 wherein said weight distribution surface is ribbed.

23. A method of retrofitting a weight distribution device to an ergonomic support device
comprising:

10 fixing a weight distribution surface to an archable pressure surface.

24. An ergonomic support comprising:

11 at least one guide rail adapted to be mounted in a seat;

12 an archable pressure surface having an upper end and a lower end,

13 means for movably attaching said upper end and said lower end of said archable
14 pressure surface to said at least one guide rail such that at least one of said upper end
15 and said lower end of said archable pressure surface slide along said at least one guide
16 rail;

17 traction means to slide said at least one of said upper end and said lower end of said
18 archable pressure surface along said at least one guide rail such that an arch forms in
19 said archable pressure surface, said arch having an apex;

20 a weight distribution surface; and

21 means to fix said weight distribution surface to said archable pressure surface.

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